AMENDMENTS TO THE CLAIMS

Claim 1 (Currently Amended) A method comprising:

~~of~~ balancing a load in a General Packet Radio Service (GPRS) network, the GPRS network including a plurality of Service GPRS Supporting Nodes (SGSNs) connected to a mobile node and a plurality of Gateway GPRS Supporting Nodes (GGSNs) connected to a Public Domain Network (PDN),

extracting an Access Point Name (APN) related to a correspondent node from a received Activate PDP Context Request message; and

comparing numbers of sessions established with searched GGSNs, respectively, to each other and selecting a GGSN having a smallest number of established sessions by the SGSN,

wherein each of the SGSNs selects one of a plurality of GGSNs capable of supporting a ~~same Access Point Name (~~APN~~)~~ and then establishes a session from the selected GGSN, the selected ~~one~~ GGSN having a smallest number of established sessions.

Claim 2 (Currently Amended) The ~~load balancing~~ method according to claim 1, comprising~~the steps of~~:

~~a)~~ receiving an Activate PDP Context Request message from the mobile node;

~~b) extracting an Access Point Name (APN) related to a correspondent node from the received Activate PDP Context Request message;~~

~~c)~~ searching for GGSNs capable of supporting GPRS for the extracted APN;

~~d) comparing numbers of sessions established with the searched GGSNs, respectively, to each other and selecting a GGSN having a smallest number of established sessions by the SGSN;~~ and ~~e)~~ requesting a session establishment from the selected GGSN.

Claim 3 (Currently Amended) The ~~load balancing~~ method according to claim 2, wherein ~~the step d)~~comparing numbers of sessions comprises ~~the steps of~~:

~~d1)~~ initializing a variable m representing a number of selectable GGSNs to the number of GGSNs searched ~~at step c)~~, and initializing a variable n representing selection priorities of the GGSNs to "1";

~~d2)~~ ascertaining the number of sessions established with each of the GGSNs searched at ~~step c)~~;

~~d3)~~ selecting a GGSN having sessions, the number of which is n-th in an ascending order, of the searched GGSNs and requesting an IP address corresponding to the selected GGSN from a Domain Name System (DNS) server;

~~d4)~~ determining whether the IP address corresponding to the selected GGSN is obtained from the DNS server;

~~d5)~~ decreasing the variable m by "1" if the IP address is not obtained ~~at step d4)~~ in the determining whether the IP address corresponding to the selected GGSN is obtained from the DNS server, and determining whether the variable m is "0";

~~d6)~~ transmitting an error message if the variable m is "0", while increasing the variable n by "1" and then performing ~~steps d3)~~the selecting GGSN having sessions, the whether the IP address corresponding to the selected GGSN is obtained from the DNS server, and the transmitting an error message~~to d6)~~ if the variable m is not "0"; and

~~d7)~~ setting the selected GGSN to a node from which the SGSN will request a session establishment if the IP address is obtained from the DNS server ~~at step d4)~~from the determining whether the IP address corresponding to the selected GGSN is obtained from the DNS server.

Claim 4 (Currently Amended) The ~~load balancing~~ method according to claim 3, wherein ~~the step d2)~~ the ascertaining is performed so that the SGSN searches session configuration information stored after establishing a session with each of the GGSNs.

Claim 5 (Original) A method of setting up a call in a General Packet Radio Service (GPRS) network, the GPRS network including a plurality of Service GPRS Supporting Nodes (SGSNs) connected to a mobile node and a plurality of Gateway GPRS Supporting Nodes (GGSNs) connected to a Public Domain Network (PDN), comprising the steps of:

a) transmitting an Activate PDP Context Request message including Access Point Name (APN) information to a corresponding SGSN by the mobile node;

b) searching for GGSNs capable of supporting GPRS for APN included in the Activate PDP Context Request message by the SGSN having received the Request message;

c) treating the Activate PDP Context Request message as an error and informing the mobile node that a session establishment is disapproved if any GGSN corresponding to the APN does not exist at step b);

d) ascertaining a number of sessions established with each of searched GGSNs by the SGSN if one or more GGSNs corresponding to the APN exist at step b);

e) requesting from a Domain Name System (DNS) server an IP address corresponding to a GGSN having a smallest number of established sessions of the plurality of the searched GGSNs;

f) obtaining the IP address in response to the request and transmitting a Create PDP Context Request message to the IP address;

g) receiving the Create PDP Context Request message, performing resource allocation and session information configuration, generating a Create PDP Context Response message and transmitting the Create PDP Context Response message to the corresponding SGSN by a GGSN designated by the IP address; and

h) receiving the Create PDP Context Response message, configuring session information and transmitting an Activate PDP Context Accept message to the mobile node by the SGSN.

Claim 6 (Original) The call setup method according to claim 5, further comprising the step of repeatedly performing an operation of requesting from the DNS server an IP address corresponding to a GGSN having a next smallest number of established sessions until the IP address corresponding to the previously selected GGSN is obtained if the IP address is not obtained from the DNS server.